

REMARKS

[0005] Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 14-22, 24-30, 32-33 and 50-52 are presently pending. Claims 14, 19, 20, 28 and 30 are amended herein. Claims 1, 3-10, 12-13, 23, 31 and 34-49 are canceled herein. New claims 50-52 are added herein.

Formal Request for an Interview

[0006] If the Examiner's reply to this communication is anything other than allowance of all pending claims and the only issues that remain are minor or formal matters, then I formally request an interview with the Examiner. I encourage the Examiner to call me—the undersigned representative for the Applicant—so that we can talk about this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

[0007] Please contact me to schedule a date and time for a telephone interview that is most convenient for both of us. While email works great for me, I welcome your call as well. My contact information may be found on the last page of this response.

Claim Amendments and Additions

[0008] Without conceding the propriety of the rejections herein and in the interest of expediting prosecution, Applicant amends claims 14, 19, 20, 28 and 30 herein. Applicant amends claims to highlight claimed features. Such amendments are made to expedite prosecution and more quickly identify allowable subject matter. Such amendments are

merely intended to clarify the claimed features, and should not be construed as further limiting the claimed invention in response to the cited references.

[0009] Support for the amendments to claims 14 and 28 is found in the Application at least in Figures 4-5 and pages 11-14 in the specification.

[0010] Furthermore, Applicant adds new claims 50-52 herein. Claim 50 is directed towards a lookup partition server. Claim 51 is directed toward determining a load balancing factor. Claim 52 is directed towards using the load balancing factors to determine a new storage partition. These new claims are fully supported by Application and therefore do not constitute new matter. Please see at least Figures 4-5 and corresponding pages 8-14 in the specification, and Figures 9-10 and corresponding pages 20-22 in the specification.

[0011] New claim 50 is allowable over the cited references at least because it recites “at least one primary lookup partition; at least two redundant lookup partitions which mirror two respective different primary lookup partitions stored on other look-up partitioning servers;” “in an event a particular storage partition is associated with the resource identifier” and “in an event no particular storage partition is associated with the resource identifier.” The cited references do not teach or suggest these claim features. Additionally, Applicant submits that claim 50 recites at least one feature similar to claim 14 as discussed below.

[0012] New claims 51-52 are allowable over the cited references at least because of their dependency upon claim 50. Furthermore, these claims further highlight how load balancing factors are determined (claim 51), and how a new storage partition is located

(claim 52). Applicant submits the cited references do not teach or suggest these claim features.

Formal Matters

Claims

[0013] The Examiner objects to claims 20 for a minor spelling error. Herein, Applicant amends this claim, as shown above, to address the objection made by the Examiner, and to expedite prosecution.

Substantive Matters

Claim Rejections under § 112 2nd ¶

[0014] Claims 23, 24, 31 and 32 are rejected under 35 U.S.C. § 112, 2nd ¶. In light of the amendments presented herein and the cancelation of claims 23 and 31, Applicant submits that these rejections are moot. Accordingly, Applicant asks the Examiner to withdraw these rejections.

Claim Rejections under § 102 and § 103

[0015] Claims 14-33 are rejected under 35 U.S.C. § 102 and § 103. In light of the amendments presented herein, Applicant submits that these rejections are moot. Accordingly, Applicant asks the Examiner to withdraw these rejections.

[0016] The Examiner's rejections are based upon the following references:

- **Black:** *Black*, US Patent No. 6,842,784 (issued January 11, 2005);

- **Legout:** *Legout, et al.*, US Patent Application Publication No. 2003/0014503 (Published January 16, 2003); and
- **Yu:** *Yu*, US Patent No. 6,351,775 (issued February 26, 2002).

Overview of the Application

[0017] The Application describes accessing and managing an online storage system. Access to a storage resource in a multiple server storage system is provided by sending to a lookup partitioning service server a resource identifier that is associated with a storage resource stored in a particular storage partition of a storage server. The LPS returns the looked-up partition that stores the storage resource associated with the resource identifier. Access to the storage resource is then enabled to the looked-up storage partition.

Cited References

Black

[0018] Black describes providing users with access to logical volumes stored on one or more of a plurality of storage elements in a computer storage system. A logical volume identifier which is unique for the accessed logical volume is used for providing access. The logical volume identifier can be used both for translation to a host configuration address and for translation to a physical storage location address.

Legout

[0019] Legout describes providing client access to a content provider server under resource locator server control. The client connects to a network through a computer and accesses the resource locator server. The locator server provides to the computer a resource locator. The resource locator contains a digital signature representative of a right granted by the locator server to the client. The signature is computed based on a unique computer characteristic or on the computer connection to the network. The client computer accesses the provider server using the resource locator. The provider server checks the digital signature for the client connection to the network, and allows the client to access content according to the result of the checking.

Yu

[0020] Yu describes dynamic routing of object requests among a collection or cluster of servers that factors the caching efficiency of the servers and the load balance or just the load balance. The routing information on server location can be dynamically updated by piggybacking meta information with the request response. To improve the cache hit at the server, the server selection factors the identifier (e.g. URL) of the object requested. A partitioning method can map object identifiers into classes; and requester nodes maintain a server assignment table to map each class into a server selection.

Anticipation Rejections

[0021] Applicant submits that the anticipation rejections are not valid because, for each rejected claim, no single reference discloses each and every element of that rejected claim.¹ Furthermore, the elements disclosed in the single reference are not arranged in the manner recited by each rejected claim.²

Based upon Black

[0022] The Examiner rejects claims 14-19, 22-25 and 28-33 under 35 U.S.C. § 102(e) as being anticipated by Black. Applicant respectfully traverses the rejection of these claims. Based on the reasons given below, Applicant asks the Examiner to withdraw the rejection of these claims.

Independent Claim 14

[0023] Applicant submits that Black does not anticipate this claim because it does not disclose at least the following features as recited in this claim, as amended (with emphasis added):

“A computer implemented method of managing access to a storage resource for one of a plurality of network-based applications in a multiple server storage system, the method comprising:

¹ “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631. 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); also see MPEP §2131.

² See *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

obtaining a resource identifier *from a front end server*;
utilizing the resource identifier to lookup, in a resource lookup store
of a lookup partitioning service server, a partition of a storage server
associated with the resource identifier;
in an event said partition of said storage server is associated with the
resource identifier, granting access to the storage resource by providing a
location of said partition of said storage server to said front end server; and
*in an event said partition of said storage server is not associated
with the resource identifier:*
creating a new storage resource in a storage partition;
associating the resource identifier with said storage
partition in said resource lookup store; and
providing a location of said storage partition to said front
end server."

[0024] The Examiner indicates (Action, p. 4) the following with regard to this claim:

10. In regard to claim 14, Black disclosed:

A computer implemented method of managing access to a storage resource for one of a plurality of network-based applications in a multiple server storage system, the method comprising:

obtaining a resource identifier associated with the storage resource from a front end server; column 22, lines 19-32

utilizing said resource identifier to locate, in a lookup store of a lookup partitioning service server, a partition of a storage server where said storage resource is located; and column 25, lines 29-44

granting access to the storage resource by providing said location of said partition of said storage server to said front end server. Column 26, lines 6-12

The limitations of claim 28 are directed to a computer readable medium, and are substantially the same as the claim limitations in claim 14.

[0025] Furthermore, the Examiner indicates the following with regard to canceled claim 23:

17. In regard to claim 23, Black disclosed:

granting access to the storage resource comprises:

determining that no storage resource exists; [treated according to rejection under 35 USC 112, 2nd paragraph]

creating a new storage resource in a storage partition; [treated according to rejection under 35 USC 112, 2nd paragraph]

associating said resource identifier with said storage partition in said resource lookup store; and column 22, lines 19-32

providing said location of said storage partition to said front end server.

column 25, lines 29-44

[0026] In the 35 U.S.C. § 112, 2nd ¶ rejection of claim 23 (OA p. 3), the Examiner states that “claims 23 and 31 are treated as associating a resource identifier with a storage partition and providing the location of the storage partition to the front end server.”

[0027] Applicant has canceled dependent claim 23 and amended claim 14 to clarify the 35 U.S.C. § 112, 2nd ¶ rejection issued by the Examiner. Thus, claim 14 recites “*in an event said partition of said storage server is associated with the resource identifier*” and “*in an event said partition of said storage server is not associated with the resource identifier.*” With the amendment to claim 14, Applicant submits that the Examiner’s interpretation of previous claims 23 and 31 is moot.

[0028] Furthermore, Applicant submits that Black does not describe each element in claim 14. For example, Black describes an enterprise storage network with primary storage nodes and secondary storage nodes (Black Figure 8). In this enterprise storage network, it may be necessary to move the location of a primary copy of a portion (e.g. volume) of a storage element (Black Fig 12, Col. 21 Lines 40-63). In order to help move volumes, Black assigns logical volume identifiers (“ELVIDS”) as unique identifiers associated with volumes (Black Col. 22 Lines 11-25).

[0029] Thus, Black utilizes the ELVIDS to identify and locate the volumes that are *to be moved* from one storage location to another. Black does not describe or suggest “*creating a new storage resource in a storage partition; associating the resource identifier with said storage partition in said resource lookup store; and providing a location of said storage partition to said front end server*” as recited in claim 14.

[0030] Consequently, Black does not disclose all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Independent Claim 28

[0031] Independent claim 28 includes at least one feature similar to the claimed features as explained above with respect to claim 14. Thus, independent claim 28 is allowable over the cited reference for at least similar reasons as claim 14. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Independent Claim 50

[0032] Independent claim 50 includes at least one feature similar to the claimed features as explained above with respect to claim 14. Thus, independent claim 50 is allowable over the cited reference for at least similar reasons as claim 14.

Dependent Claims 15-19, 22, 24-25, 29-30 and 32-33

[0033] These claims ultimately depend upon one of independent claims 14 or 28. As discussed above, claims 14 and 28 are allowable over the cited reference. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable over the cited reference. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Obviousness Rejections

Lack of *Prima Facie* Case of Obviousness (MPEP § 2142)

[0034] Applicant disagrees with the Examiner's obviousness rejections. Arguments presented herein point to various aspects of the record to demonstrate that all of the criteria set forth for making a prima facie case have not been met.

Based upon Black in view of Legout

[0035] The Examiner rejects claims 20-21 under 35 U.S.C. § 103(a) as being unpatentable over Black in view of Legout. Applicant respectfully traverses the rejection

of these claims at least because Legout does not account for the deficiencies in Black as explained above with respect to claim 14, from which claims 20-21 ultimately depend. Thus, Applicant asks the Examiner to withdraw the rejection of these claims.

Based upon Black in view of Yu

[0036] The Examiner rejects claims 26-27 under 35 U.S.C. § 103(a) as being unpatentable over Black in view of Yu. Applicant respectfully traverses the rejection of these claims at least because Yu does not account for the deficiencies in Black as explained above with respect to claim 14, from which claims 26-27 ultimately depend. Thus, Applicant asks the Examiner to withdraw the rejection of these claims.

Dependent Claims

[0037] In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant requests that the Examiner withdraw the rejection of each dependent claim where its base claim is allowable.

Conclusion

[0038] All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the **Examiner is urged to contact me before issuing a subsequent Action.** Please call or email me at your convenience.

Respectfully Submitted,

Lee & Hayes, PLLC
Representatives for Applicant

/Jacob Rohwer 61229/ Dated: 5/12/2009

Jacob Rohwer (jacob@leehayes.com; 206-876-6004)

Registration No. 61229

Beatrice L. Koempel-Thomas (bea@leehayes.com; 509-944-4759)

Registration No. 58213

Customer No. 22801

Facsimile: (509) 323-8979

www.leehayes.com